

Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040)

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CX-72 Tank Characterization



216-B-55 High Risk Borehole

Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Deactivation & Decommissioning (D&D) [R. E. Wilkinson],
- Waste Sites Remediation [B. H. Ford], and
- Reliability Projects [R. G. Slocum].

NOTE: Unless otherwise noted, all information contained herein is as of the end of January 2008.

Notable Accomplishments

Deactivation and Decommissioning

200-UW-1 U Plant Zone Waste Site Remediation

- Completed deep vadose zone supplemental characterization Data Quality Objectives (DQO).
- Finalizing Baseline Change Request (BCR) process for gathering more characterization data.

241-U-361 Settling Tank Sample Analysis and Characterization

- Completed draft 241-U-361 Characterization Report; FH internal review in progress.

221-U Canyon Facility

- Issued the *Project Experience Report, Canyon Disposition Initiative (221-U Facility)*.

231-Z Inventory Reduction

- Completed Non-Destructive Assay (NDA).
- Completed evaluation of proposals for shipping containers and qualified the selected vendor.

BC Control Area

- Incorporated Ecology comments on the BC Control Area (BCCA) Engineering Evaluation/Cost Analysis (EE/CA). In process of transmitting revised EE/CA to RL in preparation for 30-day public review and comment.
- Completed hazard analysis documenting BCCA excavations less than hazard category 3.

Waste Site Remediation

- Submitted Draft "A" Ecological Risk Assessment for the Central Plateau to RL for review.
- Received RL and Ecology approval of the Model Group 5 Sampling Analysis Plan (SAP).
- Initiated drilling of the first borehole for BC Cribs electrical resistivity correlation (ERC) tests.
- Completed the surface geophysical field work for the 200-PW-2/4 Operable Unit.
- Continued the 216-A-2 Crib borehole decommissioning.
- Completed the ERC field work for the 200-TW-2 and 200-TW-1/200-PW-5 Operable Units.
- Completed 218-W-4C Burial Ground Trench 4 sampling.
- Completed geophysical logging of five boreholes at 216-B-55 Trench.

Reliability Projects

- DOE Order 430.1B, *Real Property Asset Management*, implementation:
 - Completed DOE-HQ Federal Real Property Council (FRPC) annual data validation of Facilities Information Management System government-owned buildings and trailers.
 - o Scored "green" on all data elements.
 - Completed revision of twenty-two Project Hanford Management System documents impacted by implementation of DOE Order 430.1B.
 - Completed preliminary "draft" of the Hanford Ten Year Site Plan and submitted to RL for review and comment.

FY 2008 Funds vs. Spend Forecast (\$M)

	Projected FY 2008 Funding	FY 2008 Fiscal Year Spending Forecast	Variance
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$ 87.0	\$ 80.5	\$ 6.5

Schedule/Cost Performance (\$M)

Nuclear Facility D&D, Remainder of Hanford	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion (FY08/ CTD)
Current Period (Month)	\$4.5	\$3.6	\$3.9	-\$0.9	-20.1%	-\$0.3	-7.5%	\$73.4
Cumulative-to-Date (FY 2004-Present)	\$274.4	\$266.9	\$265.1	-\$7.5	-2.7%	\$1.8	0.7%	\$329.0

Numbers are rounded to the nearest \$0.1M.

CTD Schedule Performance (-\$7.5M/-2.7%):

The unfavorable schedule variance (SV) for the D&D Project organization (-\$1.1M) is due to:

- Delays in the UW-1 ROD which have also caused delays in the Treatability Test and RAWP scope. A revised plan has been briefed to RL and a Baseline Change Request (BCR) is in development to resequence the scope (-\$1.1).

The unfavorable schedule variance for Waste Site Remediation (-\$6.3M) is largely due to the following:

- Delays in 200-CW-1 – SAP approval (-\$3.2M).
- Delays in 200-SC-1 – Work Plan approval (-\$0.4M).
- Delays in 200-MW-1; late SAP approval, driller availability for A-2 Borehole, and delays on the ERC data analysis (-\$0.8M).
- Delayed start of 200-BC-1 field work (-\$0.4M); schedule will be recovered.
- CP Integration and Planning – Planned engineering studies not needed – scope will not be performed (-\$0.5M)
- Miscellaneous small delays across the project due to weather and delayed regulator approvals (-\$1.0M).

The unfavorable SV for Reliability Projects is within established thresholds.

Schedule/Cost Performance (\$M), continued

CTD Cost Performance (+\$1.8M/+0.7%):

The favorable cost variance (CV) for D&D (+\$2.7M) is primarily due to the following:

- Prior year cost overruns in 200-UW-1 U Zone Waste Site Remediation (-\$4.8M) resulting from:
 - Additional direct push sampling during field investigation to determine contamination levels.
 - Greater than planned effort to resolve Feasibility Study/Planning Package (FS/PP) comments and Remedial Design SAP.
 - Delays in barrier construction without reductions in staffing levels.
 - Lateral spread of contamination at 200-W-42, resulting in more waste containers being shipped to the Environmental Restoration Disposal Facility (ERDF) than planned.
- Prior year efficiencies in Surveillance and Maintenance (S&M) staff resulting from not replacing budgeted staff, and loaned labor to higher priority projects within D&D. Also due to lower than planned corrective maintenance in prior years (+\$3.1M).
- Prior and current year variance distributions (passbacks) (\$4.5M).

The unfavorable cost variance for Waste Site Remediation (-\$1.6M) is largely due to the following:

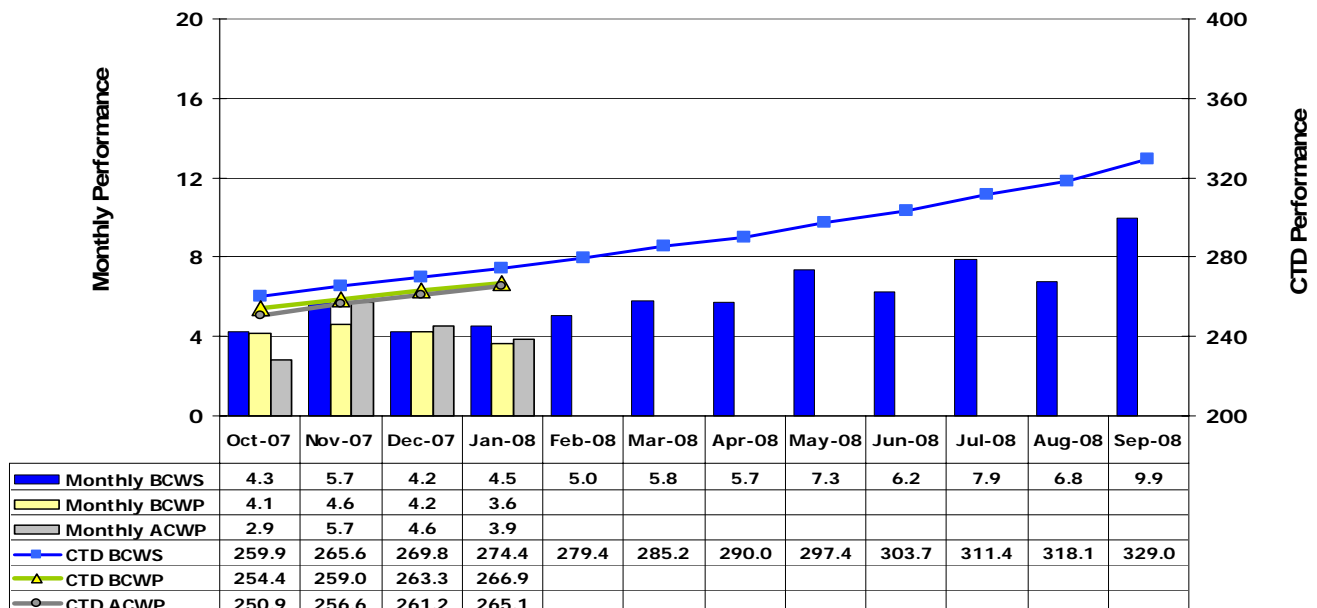
- Remedial investigation costs for 200-PW-2/4 and prior year costs for the 200-PW-1 Z-9 slant borehole (-\$3.5M).
- Prior year overruns associated with 200-LW-1 boreholes (-\$1.6M).
- Offset by significant favorable passbacks to the project and miscellaneous cost under runs in several operable units (+\$3.5M).

The favorable CV for Reliability Projects (+\$0.2M) is primarily due to the following:

- Increase in steel prices for prior-year facility and water projects (-\$3.0M).
- Prior year telecommunication projects technology deployment (-\$0.5M).
- Offset by favorable bids and underruns in Project L-325, *A-8 Substation*, (+\$1.5M), capital equipment procurements (+\$1.0M), road refurbishments (+\$0.7M), L-429, *12-Inch Water Line Mortar Lining Along 4th Street from Baltimore to Canton* (+\$0.5 M).

The favorable CV for Closure Services (+\$0.6M) is within established thresholds

Performance Analysis CTD and Monthly (\$M)



Milestone Achievement

Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The FY 2008 Enforceable Agreement milestone and Performance Incentives (PIs) information provided herein is based upon the current baseline including RL-approved changes. Changes from month-to-month in both the total number of milestones to be completed and in the forecast status of upcoming milestones are the result of BCRs approved during the reporting period.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
MR40.RL40.12 CPDD-07-004	212-N nuclear facility hazard reduction and downgrade completed	PI	11/30/07	10/25/07		Complete
M-091-40L-016	M-91-40L.4.D Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2008)	TPA	12/15/07	11/21/07		Complete
MR.RL40.P.8 CPDD-07-008	Complete Construction of Project L-626, 100B-A Water System Enhancement	PI	12/31/07	12/11/07		Complete
M-091-40L-017	M-91-40L.5.A Quarterly Burial Ground vent/substrate sampling results (2nd Qtr 2008)	TPA	3/15/08		3/15/08	On schedule
CPDD-07-0010	Complete phase one of the BC Cribs and Trenches Treatability Test Plan	PI	3/30/08		3/23/08	Ahead of schedule
RL40.1a3 CPDD-08-001	241-U-361 Settling Tank Characterization and Sampling completed	PI	3/31/08		2/29/08	Ahead of schedule
M-091-40L-018	M-91-40L.5.B Quarterly Burial Ground vent/substrate sampling results (3rd Qtr 2008)	TPA	6/15/08		6/15/08	On schedule
RL40.2d CPDD-08-004	Complete phase 2a of the BC Cribs and Trenches Treatability Test Plan	PI	7/31/08		7/31/08	On schedule
M-15-40D	Submit Revised Feasibility Study Report and Revised Proposed Plan for the 200-CW-5 OU	TPA	7/31/08		7/31/08	On schedule
M-091-40L-019	M-91-40L.5.C Quarterly Burial Ground vent/substrate sampling results (4th Qtr 2008)	TPA	9/15/08		9/15/08	On schedule
RL40.2c3 CPDD-08-003	Complete characterization of potential contamination plume in the BC Cribs and Trenches	PI	9/30/08		9/30/08	On schedule
RL40.4a CPDD-08-006	Complete 231Z nuclear facility hazard reduction	PI	9/30/08		8/27/08	Ahead of schedule
RL40.5a CPDD-08-011	Excavate 20,000 tons of contaminated Soil at BC Control Area	PI	9/30/08		9/9/08	Ahead of schedule